# Evaluating Performance-Based Contracting in Welfare-to-Work Programs: Selection and Earnings Gain Effects in Wisconsin Works*

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**Abstract:** The Wisconsin Works (W-2) program, the TANF program in Wisconsin, has introduced performance contracting to align W-2 service providers' objectives with the state's goals by establishing financial and administrative incentives. Using individual-level administrative datasets from 1998 to 2005, this study examines whether the introduction and revision of the earnings gain rate standard improved the economic performance of W-2 participants. Results reveal that under exacerbating economic conditions and weakening financial incentives, the adoption of the earnings gain standard had a positive effect on maintaining the earing gain of W-2 participants. However, W-2 agencies responded to the changes in the earnings gain rate standard by controlling the movement of W-2 participants in and out of the program and selecting those who were more likely to be employed. This study discusses a better contract design to improve the effectiveness of the welfare service provision.

**Keywords:** performance-based contracting, Wisconsin Works (W-2), TANF, welfare-to-work program

## INTRODUCTION

The passage of the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) in the United States has induced major changes in the administration of public welfare services for people in need. The PROWRA broadened the types of the Temporary Assistance for Needy Families (TANF) services that could be provided

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by nongovernmental entities (GAO, 2002, p. 6). It also authorized the states to exercise substantial discretion about whether to devolve the responsibility for providing TANF services to lower-level governments or private agencies (Weissert, 2000, p. 14; Dias & Maynard-Moody, 2006, p. 189). Consequently, state governments have increased the contracting out of welfare services to private service providers.

Following this new trend, Wisconsin has allowed private agencies to operate the Wisconsin Works (W-2), the TANF program in Wisconsin, which has led to a competition among public, nonprofit, and for-profit agencies. In 1997, private agencies came to manage the W-2 program in nine counties, including Milwaukee County, where 70% of W-2 participants had been enrolled (Kaplan, 2000). Additionally, performance-based contracting was introduced to align W-2 agencies' objectives with the state government's policy goals through incentive schemes at agencies. Under a performance-based contract, the amount paid to a contractor as well as any contract renewal or extension depends on the contractors' achieving a predetermined set of performance objectives or standards (GAO, 2002; McConnell, Burwick, Perez-Johnson, & Winston, 2003; Barnow & Smith, 2004; Martin, 2005). Performance-based contracting serves as the primary mechanism for monitoring and enhancing the performance of W-2 agencies by tying administrative and financial incentives to the agencies' performances (Heinrich & Choi, 2007).

Using the administrative records of W-2 participants from 1997 to 2005, this study examines whether adopting performance standards contributes to improving the economic outcomes of the W-2 participants. It also analyzes how W-2 agencies responded to the changes in performance standards. Although there have been considerable studies that have evaluated TANF programs, few analyses have been undertaken regarding whether performance-based contracting is related to the performance of TANF participants. Several state-level case studies on the administration of TANF programs have examined major administrative changes, including the devolution of responsibility for welfare or job service provision to lower government agencies (Gainsborough, 2003; Kelleher & Yackee, 2004; Heinrich & Choi, 2007), and coordination problems among various administrative bodies (Norris & Thompson, 1995; Liebschutz, 2000; Weissert, 2000; Sanger, 2003; Van Slyke, 2003). While several studies have examined the effectiveness of performance-based contracting in welfare-to-work programs (Koning & Heinrich, 2013) and education (Boyne & Chen, 2006), there is insufficient empirical evidence as to whether the adoption of performance standards cause changes in the responses of TANF service providers and the performance of TANF participants (Dias & Maynard-Moody, 2006).

This study focuses on the earnings gain rate standard built in W-2 performance-based contracting, measured by the proportion of employed participants with an earnings

gain. A major reason for examining the earnings gain rate standard is that there have been substantial variations in the way it has been applied over time and across subgroups of W-2 participants. In contrast, no such variations are found in other employment-related performance standards such as employment rate and job retention rate. It is more challenging for W-2 agencies to meet the earning gain rate standard, particularly under the exacerbating economic situation prevalent since 2000. To ensure that they meet the standard, W-2 agencies may utilize more resources or devise innovative ways to improve participants' earnings. Therefore, the earnings gain standard is very useful for observing the response of W-2 agencies to the changes in the W-2 performance-based contact.

This study investigates how W-2 agencies responded to the changes in the earnings gain rate standard and whether the application of the new standard enhanced the economic outcomes of W-2 participants. Did W-2 agencies adjust the entry and exit of W-2 participants to achieve the earnings gain standard? Did they select the participants with better earning prospects? Did the adoption of the earnings gain standard increase the earning of W-2 participants? This paper addresses these questions by analyzing the administrative data of W-2 participants. The variations in the earnings gain rate standard in the W-2 program provide a natural experiment that can identify the effect of performance standards on its performance.

The extent to which the intended effects of changes to welfare policies and administrative structures are realized depends on the reactions of welfare service providers to these changes (Duggan, 2000). Therefore, knowledge of providers' response to changes in performance-based contracting is essential to developing a better governance structure between the states and welfare service providers. This paper generates insights as to how to design a performance contract that improves the effectiveness of welfare administration.

## THEORETICAL BACKGROUND: PERFORMANCE-BASED CONTRACTING AND BEHAVIORS OF SERVICE PROVIDERS

### Designing Incentives to Motivate Service Providers

When state governments contract out welfare services to private providers, they need to address the problem of motivating service providers by designing performance-based contracts. Governments and service providers may have different objectives and information (Moe, 1984; Pratt & Zeckhauser, 1991).[1] Due to asymmetric information,

governments may not accurately observe the level of service providers' efforts (Pratt & Zeckhauser, 1991). Governments may observe outcomes or performances of service providers more easily than the level of effort exerted by them. Thus, by rewarding program outcomes specified by performance standards, governments can motivate service providers to work better (Prendergast, 1999). Financial rewards should be determined on the basis of how well the providers perform their tasks (Milgrom & Roberts, 1992).

However, holding service providers responsible through tying the compensation to their performances exposes them to a risk of uncertain income (Milgrom & Roberts, 1992). In the areas of job training and TANF services, the performance of providers is affected not only by their efforts but also by uncontrollable factors such as economic conditions (Eisenhardt, 1989; Milgrom & Roberts, 1992). Thus, incentive contracts such as performance-based contracts transfer a portion of the risk of variability in incomes from governments to service providers. A key issue in incentive contracting is how to balance gains from providing incentives (e.g. improvement of service quality) against the costs of motivating service providers to bear the risk (e.g., provision of performance bonus) (Milgrom & Roberts, 1992, p. 208).

The compensation system specifies who assumes the risk and responsibility for performance (Holmstrom & Milgrom, 1991, p. 24). Different contracting types have different implications with respect to incurred costs. Under cost reimbursement contracts, providers have a low incentive to lower costs and a strong incentive to report overstated expenses to governments (McAfee & McMillan, 1989). If the quality of services matters, cost reimbursement contracts would be better than fixed-price contracts. In contrast, under fixed-price contracts, providers have strong incentives to search for ways of lowering costs and weak incentives to increase costs. Thus, under fixed-price contracts, the powerful incentive to reduce costs might hurt the quality of services unless governments regulate the quality of services appropriately. TANF service providers might be tempted to save costs by skimping on quality (McAfee & McMillan, 1989, p. 39) or by enrolling participants who are more employable (Barnow & Smith, 2004). Performance-based contracts that tie performance to payment might address these problems better than other types of contracts.

1. Governments have difficulty in monitoring whether providers take appropriate actions to achieve program goals or just engage in self-interested activities and difficulty in inducing providers to behave appropriately (Milgrom & Roberts, 1992, p. 170).

## Developing Performance Standards in Performance Management Systems

Under the management system for steering service providers, implementing performance contract includes a series of tasks: setting clear objectives and standards, designing rewards for providers that meet the standards and sanctions for those that do not, and monitoring and evaluating providers' performances (Verhoest, 2005; Barnow & Smith, 2004). Developing appropriate performance measures is a major component of a performance contract. By specifying performance goals and encouraging service providers to accomplish the goals, the government can address the problem of informational deficiency (Dixit, 2001). The goals of both parties may be aligned more closely because clear objectives and targets have been set and negotiated (Verhoest, 2005).

Well-designed performance measures may safeguard against excessive cost-reduction activities that may hurt the quality of services. Without performance standards, for example, private agencies might pursue excessive cost-saving activities, particularly under fixed-cost contracting (McAfee & McMillan, 1989). By asking the providers to achieve certain standards and motivating them to meet higher performance goals, governments can improve the performance of service contractors. Because payment is made or a contract is renewed only when the providers achieve targeted levels of performance, service providers are motivated to focus their activities on the program outcomes and to reduce spending on unnecessary or wasteful activities (Martin, 2005).

## Intended Effects of Performance-Based Contracting

There are several ways the adoption of performance contracting affects the performance of the TANF program. Performance contracting is an accountability mechanism for dealing with information asymmetry (Gormley & Weimer, 1999). The problem of information asymmetry may be lessened through various information-revealing instruments such as requirements for the submission of business plans, performance evaluation, and audits, which are built in performance-based contracting (Verhoest, 2005). Governments can obtain more information for making decisions and gain more useful insights into service contractors. The visibility of performance may lead governments and TANF service providers to be more concerned about outcomes (Jennings & Haist, 2004). Because the public may better compare the performance of different service providers than before, public administrators and public or private managers have to increase their efforts to improve the performance in TANF program.

The availability of performance information also leads to a design mechanism that tightly links reward and punishment to performance (Jennings & Haist, 2004). Public

opinion may create pressure to adopting instruments linking performance with rewards or punishments. Performance reports affect the reputation of TANF providers, the professional prestige and career opportunities of the public or private managers, and service providers' access to financial resources. Public or private managers thus see to develop strategies and mobilize more resources to achieve performance goals (Jennings & Haist, 2004).

## Gaming Behaviors of Service Providers: Cream-Skimming and Parking Effects

As governments link contract payments for service providers to program performance using performance-based contracting, service providers assume the risk of lower financial compensation when they fail to achieve performance standards. Thus, service providers might strive to meet performance goals, which results in unintended effects such as cream skimming and the parking of program participants (Koning and Heinrich, 2013).

In the areas of job training and welfare services, including TANF, selection, or cream skimming, refers to providers' selecting participants who will enable the agency to more easily meet program goals such as job placement and earnings gain (Courty & Marske, 2004; Lu, 2014). Providers have disincentives to serve people with poor employment prospects. Parking is a type of cream-skimming behavior. Service providers have incentives to control the flow of program participants (Koning & Heinrich, 2013). To enhance the job placement rate in a contract period, for example, providers may use more resources on participants with better job prospects and provide fewer services to those with poorer job prospects (Koning and Heinrich, 2013). Consequently, the job search duration of easy-to-place participants will be shorter, while that of hard-to-place participants will be longer (Koning and Heinrich, 2013). Thus, parking increases the gap in job placement rates between the two groups (Koning and Heinrich, 2013). A related problem arises with outcome-oriented incentive systems that give service providers discretion over the timing of the graduation of participants (Courty & Marschke, 2004); they can use this to their advantage, controlling the timing of the movement of job trainees into placements so that they meet target levels (Courty & Marschke, 2004).

Researchers have looked for empirical evidences of selection and parking problems in various policy contexts (Shen, 2003; Courty & Marschke, 2004; Koning & Heinrich, 2013). However, data limitations have precluded directly testing selection effects (Shen, 2003). This research empirically examines both performance-enhancing and selection effects of performance-based contracting in the W-2 program.

## POLICY CONTEXT AND HYPOTHESES

### W-2 Performance Contracting Structure and Features

Using W-2 performance-based contracting, the state of Wisconsin ties W-2 agencies' performances to administrative and financial compensations (Breaux, Duncan, Keller, & Morris, 2002) and determines the prerequisites that W-2 agencies have to meet to earn performance bonuses and other rewards. Between 1997 and 2005, there were four rounds of biannual performance contracting (1997-1999, 2000-2001, 2002-2003, and 2004-2005) in the W-2 program. The state introduced performance standards such as job placement rate, earnings gain rate, and job retention rate during the second contract round (2000-2001) to measure W-2 agencies' performances.

It also set up three levels of performance, a base performance level, a first bonus level, and a second bonus level, which determine the agencies' right of first selection (RFS) and bonus payments (Department of Workforce Development, 2001a; Wisconsin Legislative Audit Bureau, 2001; Heinrich & Choi, 2007). Table 1 shows the performance measures and target levels for W-2 participants used during 2000-2005 contract periods.[2] For example, during 2000-2001, W-2 agencies needed to place at least 35% of exited participants into paid jobs to achieve the base performance level of the job placement rate. If W-2 agencies met the base performance level, they were able to obtain RFS, so that they would not have to compete with other contractors in the next contract round (Department of Workforce Development, 2001a; Wisconsin Legislative Audit Bureau, 2001). If they achieved the first bonus level, which is set higher than the base level, they can earn performance bonuses. W-2 agencies should meet all of the performance standards at each level to earn the right of first selection and performance bonuses (Department of Workforce Development, 2001b; Wisconsin Legislative Audit Bureau, 2001). Thus, W-2 agencies bear substantial risks of achieving performance goals.

Another major part of W-2 performance-based contracting is to decide the composition and size of performance rewards. Table 2 presents basic structures of performance bonuses rewarding high performances in the W-2 program. There were substantial changes in the provision of performance bonuses over the four contract periods. The first contract (1997-1999) offered opportunities for W-2 agencies to obtain large financial rewards from administering public welfare programs (Heinrich & Choi, 2007). Agencies achieving the bonus level could keep up to 7% of unspent budgets as unre-

2. Heinrich & Choi (2007) provides detailed information on performance measures and target levels used in the four contract periods.

**Table 1.** Performance Measures and Target Levels, 2000-2005

| Performance Measures | | 2nd Contract (2000-2001) | 3rd Contract (2002-2003) | 4th Contract (2004-2005) |
|---|---|---|---|---|
| Entered Employment | base performance level (RFS) | 35% | 35% | 35% |
| | 1st bonus level | 40% | 35% | 35% (only if bonus is available) |
| | 2nd bonus level | 45% | 40% | |
| Average Wage Rate (2000-2001)/ Earnings Gain (2002-2005) | base performance level (RFS) | equal to or greater than base wage rate at 1998 | 50% with any monthly earnings gain | NA |
| | 1st bonus level | base wage rate + 2.5% | 50% with any monthly earnings gain of $50 | 19.3% (only if bonus is available) |
| | 2nd bonus level | base wage rate + 5% | 50% with any monthly earnings gain of $1000 | |
| Job Retention: 30 Days | base performance level (RFS) | 75% | 75% | NA |
| | 1st bonus level | 80% | 80% | 32% (only if bonus is available) |
| | 2nd bonus level | 85% | 85% | |
| Job Retention: 180 Days | base performance level (RFS) | 50% | 50% | NA |
| | 1st bonus level | 55% | 55% | NA |
| | 2nd bonus level | 60% | 60% | NA |

Source: Wisconsin Legislative Audit Bureau (2001, 2005); Department of Workforce Development (2003a, 2003b); Heinrich & Choi (2007).

stricted bonuses (see table 2).[3] The prospect of earning large bonuses for achieving W-2 performance goals served as a powerful incentive for W-2 agencies (Heinrich & Choi, 2007). W-2 agencies earned $65.1 million as performance bonuses, which constituted 15.7% of the budget for primary contract services. In addition, W-2 agencies obtained $66.5 million as community reinvestment funds (Wisconsin Legislative

3. If the unspent funds exceeded 7% of the contract budget, the remaining funds were divided between the state and W-2 agencies; 10% of the remaining budget was given to agencies as unrestricted profit. Out of the remaining 90% of funds, 45% was allocated to the agency as community reinvestment funds for services to people in need. The other 45% was retained by the state (Wisconsin Legislative Audit Bureau, 1999, p. 12, Heinrich & Choi, 2007).

**Table 2.** Performance Rewards and Expenditures of W-2 Program, 1999-2005

| | | 1st Contract (1997-1999) | 2nd Contract (2000-2001) | 3rd Contract (2002-2003) | 4th Contract (2004-2005) |
|---|---|---|---|---|---|
| Base | RFS | earned when base performance level was met | | | |
| Contract Performance | community reinvestment funds | 45% of remaining surplus | 3% of contract amount | replaced by emergency fund | replaced by emergency fund |
| 1st Bonus Level | 1st bonus | up to 7% of unspent budget and 10% of remaining surplus (when unspent fund exceeds 7% of budget) | 2% of contract amount (unrestricted) | amount is not specified (unrestricted) | bonus eliminated |
| 2nd Bonus Level | 2nd bonus | | 2% of contract amount (unrestricted) | amount is not specified (unrestricted) | bonus eliminated |
| W-2 Expenditures (in Millions) | primary contract services | $ 413.6 | $ 348.0 | $ 313.9 | $ 284.5 |
| | performance bonus | $65.1 (15.7%) | $12.8 (3.7%) | | |
| | community reinvestment funds | $66.5 (16.1%) | $5.4 (1.6%) | | |

Source: Wisconsin Legislative Audit Bureau (2001, 2005); Department of Workforce Development (2003a, 2003b); Heinrich & Choi (2007).

Audit Bureau, 2005).

The second round of W-2 contracting in 2000-2001 increased contract performance requirements and the level of monitoring (Heinrich & Choi, 2007). A key change under this new contract was the introduction of outcome-based standards as a measure of performance achievements. Another change was a reduction in the level of performance bonuses to a total of 4% of the contract budget (table 2). As a result, W-2 agencies' unrestricted bonuses totaled $12.8 million, which constituted 3.7% of the primary contract services budget. The community reinvestment funds totaled $5.4 million. In effect, while performance requirements became more stringent, opportunities to earn performance bonuses became more limited (Heinrich & Choi, 2007).

During the third contract period (2002-2003) the state improved contract management in an effort to increase the effectiveness of the W-2 program (Heinrich & Choi, 2007). The legislature imposed substantial constraints on the state with regard to the rules for determining performance rewards (Heinrich & Choi, 2007). In the first two contract periods, bonus rates and funds available for performance bonuses were specified

in advance. However, in the third period, the funds available for performance bonuses were set by the biennial budget for 2002-2003 (Department of Workforce Development, 2001a; Heinrich & Choi, 2007). Furthermore, the bonuses earned during this contract period were not paid until approximately one year after the end of the contract (Heinrich & Choi, 2007). It was uncertain whether W-2 agencies would receive performance bonuses, even though they met the bonus performance levels specified in the contract (Department of Workforce Development, 2003b). In fact, they did not end up receiving any performance bonuses during this contract period (Wisconsin Legislative Audit Bureau, 2005).

The biennial budget for 2004-2005 eliminated performance bonus funding during the fourth contract period (2004-2005), although the W-2 contract specified criteria under which bonuses might be earned if performance bonus funding became available (Heinrich & Choi, 2007). The only reward for W-2 agencies achieving performance targets in the 2004-2005 W-2 contract period was RFS. The financial incentives that had been built into W-2 performance contracting had become weaker over time (Heinrich & Choi, 2007).

## W-2 Job Placements

Participants in the W-2 program are assigned various jobs based on their education level and work experiences (Wisconsin Legislative Audit Bureau, 2001). Financial and employment planners in W-2 agencies evaluate W-2 applicants' eligibility for the W-2 program and assign W-2 participants specific job placements. The placements are structured like a ladder (Kaplan, 2000). The participants move to upper levels as they achieve milestones such as getting a job or successfully completing job training or other work activities (Kaplan, 2000; Wisconsin Legislative Audit Bureau, 2001).

Table 3 shows the types of job placements in the W-2 program. The placements are broadly classified into upper tier and lower tier, depending on whether the W-2 participants are employed or receive cash benefits (Kaplan, 2000). W-2 participants in the upper tier do not receive cash benefits because they are either employed or just about ready to be employed (Wisconsin Legislative Audit Bureau, 2001a). Case management follow-up (CMF) placement, case management for working individuals (CMU) placement, and case management for job-ready individuals (CMS) placement are classified as part of the upper tier.

When participants previously assigned in the lower tier become employed, they are moved into the CMF placement and given follow-up case management services for at least six months (Wisconsin Legislative Audit Bureau, 2001). The quarterly earnings of

**Table 3.** Job Placements in W-2 Program

| | Job Placements | Features | Average End-Quarter Earnings in 2004 |
|---|---|---|---|
| Upper Tier (Case Management Only) | CMF | employed participants previously assigned to a subsidized employment position | $2,259 |
| | CMU | employed applicants applying for W-2 program | $2,086 |
| | CMS | unemployed applicants ready for unsubsidized employment | $675 |
| Lower Tier (Case Management and Cash Benefits) | TJB | subsidized employment (subsidy to employer: max. $300) | $2,506 |
| | CSJ<br>CS1, CS2, CS3 | cash benefit ($673)<br>cash benefit ($230, $341, $452) | $1,589 (CS1)<br>$644 (CSJ) |
| | W-2T | cash benefit ($628) | $383 |
| | CMC | no work-related requirement, cash benefit ($673) | $621 |

Source: Kaplan (2000), Wisconsin Legislative Audit Bureau (2001, 2005). Author's calculations are based on earnings in 2004.

those who exited CMF placements in 2004 were about US$2,259. Employed applicants applying for help from the W-2 program are placed in CMU. Unemployed applicants who are ready for unsubsidized employment are placed in CMS (Wisconsin Legislative Audit Bureau, 2001). Because CMF participants are employed as a result of successful service provisions by W-2 agencies, their placements are regarded as the most prized accomplishments of W-2 agencies. CMF and CMU participants are exemplars for other W-2 participants.

The lower tier comprises five types of placements: trial job (TJB); community service job (CSJ), which includes CS1, CS2, CS3 placements tied the number of hours per week the person works (10-14, 15-19, or 20-29 hours per week respectively), W-2 transition job (W-2T), and case management for caretakers of newborns (CMC) (Kaplan, 2000; Wisconsin Legislative Audit Bureau, 2001). The lower-tier job placements have a two-year limit. The participants in lower-tier placements receive cash benefits amounting to maximum US$673 per month, which can be adjusted per their compliance with work requirements (Kaplan, 2000).

## Changes in the Earnings Gain Rate Standard

There were no changes in the rates of job placement and job retention over the contract periods effected by (see table 1). However, there were substantial changes in the way earnings gain rate standard was defined and measured between the second and the third contract periods. Table 4 shows the application of the earnings gain rate standard during the four rounds of W-2 contracts.

The earnings gain rate standard was first introduced in the second contract period. It is measured by the changes in the earnings of W-2 participants when they enter and exit the W-2 program (Wisconsin Legislative Audit Bureau, 2001). The earnings gain rate is the percentage of participants with positive earnings gain, which is calculated by the number of W-2 participants who exit with positive earnings gain divided by the number of W-2 participants who exit (Wisconsin Legislative Audit Bureau, 2001).

In the second contract period, the earnings gain rate standard was applied to all employed W-2 participants in order to obtain RFS and performance bonuses (Wisconsin Legislative Audit Bureau, 2001; Heinrich & Choi, 2007). However, in the third contract period, the standard was applied to specific participant groups, namely, those in unsubsidized employment placements such as CMF and CMU. The standard no longer had to be applied to participants in lower tiers such as TJB, CSJ, and W-2T (Department of Workforce Development, 2004). The earnings gain rate standard was considered appropriate only for those employed at the beginning of the provision of W-2 case management services. The earnings at entry into CMF and CMU placements were compared with those at the exit from the placements. In the middle of the 2002-2003 contract, the earnings gain standard became optional (Department of Workforce Development, 2004). W-2 agencies no longer need to meet the standard to obtain RFS and performance bonuses.

**Table 4.** Application of Earnings Gain Rate Standard, 1997-2005

| | 1st Contract (1997-1999) | 2nd Contract (2000-2001) | 3rd Contract (2002-2003) | 4th Contract (2004-2005) |
|---|---|---|---|---|
| CMF, CMU (unsubsidized employment in upper tier) | not applied | applied | applied (2002) not applied (2003) | not applied |
| TJB, CSJ, W-2T (unemployed or subsidized employment in lower tier) | not applied | applied | not applied | not applied |

Source: Wisconsin Legislative Audit Bureau (2001, 2005); Department of Workforce Development (2003a, 2003b); Heinrich & Choi (2007).

## W-2 Agencies' Response to the Changes in Earnings Gain Rate Standard

W-2 agencies could meet the earnings gain rate standard in three ways. First, they could reduce the number of CMF or CMU placements. Since there were no restrictions on the time limit for the provision of case management services in the upper tier or on the number of CMF or CMU placements, W-2 agencies might "park" the participants who were less likely to be employed and prevent them from moving up to the CMF or CMU placements. If they did this, then the entry rate of participants in CMF or CMU placements in 2002 would be lower than that of CMF or CMU participants for 2000-2001.

In addition, W-2 agencies might defer the exit of CMF or CMU participants with no earnings gain, which is also a type of parking (Koning & Heinrich, 2013). Since the denominator of the earnings gain rate is the number of CMF or CMU participants who exit during the contract period, W-2 agencies would have an incentive to postpone the exit of CMF or CMU participants with no earnings gain until another year (Barnow & Smith, 2004; Commons, McGuire, & Riordan, 1997). If the agencies did postpone the exit of these participants, the exit rate in 2002 might be lower than that for CMF or CMU participants during 2000-2001.

Second, since performance standards are usually announced about one year before each contract begins, W-2 agencies might use this knowledge to select participants for the program who were more likely to have an earnings gain and who had better job prospects. If the agencies did so, the CMF or CMU participants who exited in 2002 might be better educated and have a longer employment history than those who exited in the 2001-2001 contract period.

Third, W-2 agencies might try to increase the earnings gain of participants to whom the standard is applied and reduce intensive services given to other groups of participants (e.g., participants in a lower-tier placement such as CSJ). W-2 agencies might mobilize their resources for participants or activities that contribute to meeting the required performance standards (Brodkin, Fuqua, & Thoren, 2002; Thiel & Leeuw, 2003; Dias & Maynard-Moody, 2006). The application of the earnings gain standard to just CMU and CMF participants in 2002 could result in the level of earnings gain for these participants in 2002 being higher than or similar to the level as CMF and CMU participants in 2000-2001 owing to provision of more targeted services to those in CMU and CMF placements. W-2 agencies might also allocate fewer resources to other groups of participants such as TJB or CS1 than they did during the previous contract period because these participants were no longer being counted in the calculation of the earnings gain rate standard. This study uses the participants in TJB and CS1 placements as a comparison group to identify the effect of earnings gain

standard because they match CMF and CMU participants more in terms of earnings than other participant groups do. If W-2 agencies did allocate fewer resources to lower-tier groups, then the level of earnings gain for TJB or CS1 participants might be lower in 2002 than in 2000- 2001. Consequently, the earnings gain differential between CMF and CMU and TJB and CS1 participants might be greater in 2002 than in the previous period.

The elimination of the earnings gain rate standard in 2003 enables us to reconfirm the role of the earnings gain standard. Since it was eliminated at the end of 2002, W-2 agencies might have reduced their efforts to improve the earnings gain of CMF or CMU participants from that point on. If they did, then the earnings gain of CMF or CMU participants in 2003 might be lower than that in 2002. On the other hand, the earnings gain for TJB or CS1 participants might be similar between the two periods (2002 versus 2003) because the earnings gain rate standard had already been eliminated in 2002. Thus, the difference in the earnings gains between the CMF and CMU participants and TJB and CS1 participants might be smaller in 2003 than in 2002.

## METHOD

### Data

The W-2 participant level datasets are drawn from two major sources. The first is the Client Assistance for Reemployment and Economic Support (CARES) system, which is maintained by the Wisconsin Department of Workforce Development. It provides detailed information on the characteristics of W-2 participants and their placements each month. The second source of data is unemployment insurance records in Wisconsin, which provides employment and quarterly earning information of W-2 participants. This study utilizes all W-2 cases enrolled in CARES system from 1997 to 2005. The sample includes participation history, individual characteristics, and quarterly earnings of 263,333 cases enrolled between October 1997 and June 2005. The study also uses state policy documents on W-2 contracts, which provides information on performance standards and changes in them over time.

### Analysis Plan

This study analyzes the response of W-2 agencies to the changes in the earnings gain rate standard and the impact of these changes on W-2 participants' outcomes measured by earnings gain. First, the study examines the entry and exit pattern of W-2

participants during contracting periods, investigating whether the rates of flow in and flow out of CMF and CMU placements vary across contracting periods. It also examines whether the number of days participants stay in CMF or CMU placements varies by contracting years. Second, the study investigates whether the characteristics of participants in CMF and CMU placements differ during contracting periods. By investigating W-2 participants' education level and earning history prior to entering the W-2 program, we can assess whether W-2 agencies selected the participants with high earning capacity to meet the earnings gain rate standard.

Third, this study examines the levels of and changes in the earnings gain of different groups of participants across the four rounds of W-2 contracts to identify the effect of the earnings gain rate standard, designating CMF and CMU participants as a *treatment group* and TJB and CS1 participants as a *comparison group*. By comparing the changes in the earnings gain of participants with different job placements, we can confirm the effect of adopting and eliminating the earnings gain rate standard on the earnings gain of W-2 participants. This study conducts four sets of regression analysis in which the quarterly earnings gain of the participants is used as a dependent variable. Table 5 presents the variables used in the regression analysis. Earnings gain is measured by the change in quarterly earnings between entry and exit quarters, which is CPI adjusted in 2004 constant dollars. A dummy variable, CMFCMU, indicates whether the W-2 participants are in CMF and CMU placements or TJB and CS1 placements (omitted category). The YEAR variable is used to identify the contract years in which W-2 participants exited from their current job placements. In the four sets of regression analysis, different years were used as omitted categories (e.g., 1998-1999 for 2000-2001). An interaction term, CMFCMU*YEAR, was added to examine whether there are significant differences between the earnings gain of different W-2 placement groups over the contracting years.

The regression analysis controls for the participants' characteristics (age, education level, race, number of children in their households, age of the youngest child). Several work and welfare related characteristics of the W-2 participants (number of months on AFDC, initial W-2 placement, amount of quarterly earnings, and number of quarters the person was employed prior to entering the W-2 program) are used as covariates. The regression models also include the characteristics of W-2 agencies, such as location (e.g., Milwaukee, other urban or rural areas) and regional unemployment rates. Standard errors are clustered by W-2 agencies to account for plausible correlations among participants served by the same agencies (Duggan, 2003). Appendix table 1 shows the characteristics of the W-2 participants from 1997 to 2005.

**Table 5.** Definitions of Variables Used in OLS Regression Analysis

| Variables | Definitions |
|---|---|
| **Dependent Variable** | |
| earnings gain | difference in quarterly earnings between the beginning and end of the quarter (2004 constant $) |
| **Independent Variables** | |
| beginning earnings | earnings at the beginning of the quarter (2004 constant $) |
| CMFCMU | 1= participants in CMF/CMU groups, 0= participants in TJB/CS1 groups |
| year (2000-2001) | 1= exited W-2 in 2000-2001, 0= exited W-2 in 1997-1999 |
| year (2002) | 1= exited W-2 in 2002, 0= exited W-2 in 2000-2001 |
| year (2003) | 1= exited W-2 in 2003, 0= exited W-2 in 2002 |
| year (2004) | 1= exited W-2 in 2004, 0= exited W-2 in 2003 |
| CMFCMU*year (2000-2001) | 1= CMF/CMU participants exited in 2000-2001, 0= others |
| CMFCMU*year (2002) | 1= CMF/CMU participants exited in 2002, 0= others |
| CMFCMU*year (2003) | 1= CMF/CMU participants exited in 2003, 0= others |
| CMFCMU*year (2004) | 1= CMF/CMU participants exited in 2004, 0= others |
| **Control Variables** | |
| age | age of respondents: 10-15, 16-17, 18-25, 26-30, 31-40, 41 or over (ref.) |
| education | education level of respondents: high school or more, high school, less than high school (ref.) |
| race | white (ref.) black, Hispanic, Asian, other |
| number of children | 0 (ref.), 1, 2, 3 or more |
| age of youngest child | no children (ref.), unborn, 0-2, 3-5, 6-12, 13-17 |
| AFDC history | number of months receiving AFDC prior to enter W-2: none (ref.), 1-18 months, 19-24 months |
| initial W-2 assignment | W-2 job placements at entry: CMC, upper tier, lower tier (ref.) |
| pre-entry earning | average earnings prior to entering W-2: none (ref.), $1-5,000, $5,001-15,000, $15,001-25,000, $25,001 or more |
| pre-entry employment | number of employed quarters prior to enter W-2: none, 1-4 quarters, 5-7 quarters, 8 quarters (ref.) |
| service region | Milwaukee County, Other Urban Counties, Rural Counties (ref.) |
| unemployment rate | unemployment rate of resident counties |

## RESULTS

### The Effect of the Earnings Gain Standard on the Response of W-2 Agencies

To explore how W-2 agencies responded to the changes in performance standards, the dynamic patterns and the movements of participants in and out of the CMF, CMU, and other job placements (e.g., TJB, CSJ) are examined. First, this study investigates whether W-2 agencies reduced the number of entrants into CMF and CMU job placements in the 2002-2003 period and deferred the exit of the participants to meet the earnings gain rate standard.

Table 6 shows the proportion of participants who had entered new job placements from 1997 to 2005. Multiple sets of t-tests comparing proportions were conducted to examine whether the proportion of a specific group of participants in a year was different from that of the previous or subsequent year for the period 1999 to 2004. For example, CMF participants constituted 21% of the new job placements in 2000, which is compared with 22.5% in 1999. Test result shows that the differences are statistically significant.

The results reveal that the proportion of new CMF participants decreased from 1999 to 2003. During the same period, the proportion of new CMU participants decreased as well. In contrast, the number of new participants in the lower tier

**Table 6.** Proportion of New W-2 Participants by Job Placements, 1997-2005

| | | 1st Contract | | | 2nd Contract | | 3rd Contract | | 4th Contract | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
| Upper Tier | CMF | 4.7 | 20.5 | 22.5** | 21.0** | 16.5** | 14.3** | 12.6 | 15.6 | 11.3 |
| | CMU | 25.5 | 12.0 | 4.1 | 3.9** | 2.6** | 2.3** | 1.6 | 2.0 | 2.9 |
| | CMS | 13.9 | 5.7 | 9.3** | 11.3 | 11.2** | 10.5* | 11.0 | 7.1 | 12.4 |
| Lower Tier | TJB | 1.7 | 0.8 | 0.6** | 0.4** | 0.2** | 0.3** | 0.2 | 0.3 | 0.3 |
| | CSJ | 29.6 | 37.6 | 33.5** | 29.9** | 33.8** | 37.3 | 37.2 | 36.1 | 29.2 |
| | W-2T | 13.7 | 12.8 | 16.0** | 17.8** | 18.8 | 19.0** | 20.4 | 20.6 | 17.6 |
| | CMC | 10.3 | 10.3 | 13.6** | 15.0* | 15.7 | 15.4 | 15.9 | 17.3 | 25.1 |
| | Others | 0.6 | 0.3 | 0.4** | 0.7** | 1.1 | 1.0** | 1.2 | 1.0 | 1.3 |
| N | | 6,723 | 33,446 | 32,120 | 32,640 | 35,098 | 37,058 | 39,625 | 37,257 | 9,366 |

Note: statistical tests of differences in proportions of participants are conducted for the period 1999-2003. Proportions in adjacent two years for each job placements are compared.

* p<0.05, ** p<0.01

increased as the economic situation worsened after 1999. Due to the economic downturn, W-2 agencies had to absorb more W-2 applicants, and more participants joined paid placements such as CSJ, W-2T, and CMC.

The decrease in the proportion of new CMF participants in 2002-2003 might be related to the increase in the proportion of new CSJ participants to whom the earnings gain standard was not applied from 2002 onward. W-2 agencies might have reduced the flow of participants into CMF or CMU placements to which the earnings gain standard was applied and prevented the CMF or CMU participants who might not have an earnings gain from exiting.

Table 7 shows the average number of days W-2 participants stayed in each job placement by the year of entry. The results present t-tests that compare two consecutive average number of days participants remained in job placements from 1999 to 2003. For example, CMF participants who entered in 2000 stayed 141 days, whereas those who entered in 1999 stayed 127 days. The t-test results show that the difference in the number of days participants remained in job placements is statistically significant. The CMF participants who entered in 2002 stayed for 160 days, which was the longest period throughout the contract periods, surpassing 127 days of those entering in 2001.[4]

The CMU participants who entered in 2002 also remained in their job placements for

**Table 7.** Average Number of Days W-2 Participants Remained in Job Placements, 1997-2005

| | 1st Contract | | | 2nd Contract | | 3rd Contract | | 4th Contract | | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | |
| CMF | 147.9 | 103.1 | 126.5** | 141.4** | 126.7** | 159.9** | 132.9 | 133.0 | 62.8 | 129.3 |
| CMU | 161.3 | 103.1 | 70.8 | 71.1 | 74.6** | 87.6** | 75.5 | 65.0 | 36.2 | 106.2 |
| TJB | 81.7 | 80.3 | 73.8 | 75.0* | 62.9 | 59.0** | 66.1 | 81.0 | 57.5 | 74.6 |
| CSJ | 216.0 | 145.0 | 105.4 | 103.4** | 118.3** | 122.3** | 129.5 | 106.4 | 59.4 | 124.5 |

Note: statistical tests of differences in the means of duration days are conducted for the period 1999-2003. Average duration days in adjacent two years for each job placements are compared.

* p<0.05, ** p<0.01

4. W-2 agencies might have had incentive to exit participants with good earning prospects in 2002. For example, if CMF participants who entered in that year were more employable, W-2 agencies might have exited them to meet the earnings gain rate standard, which would have shortened the amount of time CMF and CMU participants remained in their job placements. Overall results show that W-2 agencies choose to postpone ending the services they provided to CMF and CMU participants in 2002 rather terminate them early.

a longer period than their counterparts did in 2001. TJB participants show no significant difference in the length of time they remained in their job placements between the two years. However, CSJ participants remained in their jobs an average of 4 days longer, which is much lower than the 33 days for CMF participants between 2001 and 2002. W-2 agencies might have been postponing the exit of participants with poor performance from CMF or CMU placements.

The variations in the average number of days W-2 participants remained in different job placements are related to the exit rate of W-2 participants. Table 8 shows the proportion of W-2 participants who exited by job placements during the four rounds of the W-2 contracts. The proportion of participants who exited the CMF placement declined about 38% from 20.4% in 2001 to 12.5% in 2002. The proportion of CMF participants who exited slightly increased in 2003 when the earnings gain rate standard was not applied. A major reason for the decline in the proportion of participants exiting CMF and CMU placements in 2002 was the decrease in the number of new entrants in these placements that began in 2000. In contrast, the share of participants in the lower tier who exited (e.g., CSJ, W-2T, CMC) increased over time. The proportion of participants in the CSJ placement increased from 30.7% in 2001 to 38.0% in 2002, an increase of 26%.

W-2 agencies might have selected the participants with higher earning capacity for CMF or CMU placements in the third contract period, particularly in 2002. To ascertain

**Table 8.** Proportion of W-2 Participants Who Exited the W-2 Program, 1997-2005

| | | 1st Contract | | | 2nd Contract | | 3rd Contract | | 4th Contract | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
| Upper Tier | CMF | 3.9 | 17.5 | 20.8** | 19.8 | 20.4** | 12.5** | 14.7 | 13.2 | 17.9 |
| | CMU | 25.9 | 16.9 | 4.3 | 4.1** | 2.8* | 2.5** | 1.8 | 1.8 | 2.1 |
| | CMS | 19.9 | 7.6 | 8.6** | 11.2 | 11.3 | 11.0** | 11.9 | 6.6 | 7.6 |
| Lower Tier | TJB | 3.0 | 1.0 | 0.6 | 0.5** | 0.2** | 0.3** | 0.2 | 0.2 | 0.2 |
| | CSJ | 22.7 | 34.3 | 37.1** | 30.9 | 30.7** | 38.0** | 35.1 | 39.1 | 31.7 |
| | W-2T | 11.0 | 11.2 | 15.0** | 17.8 | 17.9** | 18.8 | 19.2 | 21.4 | 22.4 |
| | CMC | 12.2 | 11.1 | 13.2** | 14.9** | 15.7 | 15.9 | 15.9 | 16.6 | 17.4 |
| | Other | 1.5 | 0.4 | 0.4** | 0.7** | 1.1 | 1.1 | 1.2 | 1.0 | 0.7 |
| N | | 2,041 | 28,675 | 32,594 | 32,218 | 34,508 | 35,169 | 39,228 | 39,279 | 19,621 |

Note: statistical tests of differences in proportions of participants were conducted for the period 1999-2003. Proportions in adjacent years for each job placement are compared.

* p<0.05, ** p<0.01

whether they did, this study explores whether there were differences in the characteristics of new CMF and CMU participants when they entered the W-2 program. Table 9 shows education level, annual earnings, and number of quarters the participant had been employed at baseline for new CMF and CMU participants across the four rounds of W-2 contracts.

The percentage of CMF and CMU participants with higher education had increased since 1999. However, no distinctive differences were found between the second and the third contract periods, particularly between 2001 and 2002. In contrast, the levels of annual earnings of CMF and CMU participants at baseline show substantial differences between the two contracting periods. The earning capacity of W-2 participants assigned to CMF or CMU placements since 2002 has been higher than that of those from the pre-2002 period. While the percentage of participants with no earnings declined from

**Table 9.** Features of New CMF/CMU Participants by Entry Year

| | 1st Contract | | | 2nd Contract | | 3rd Contract | | 4th Contract | |
|---|---|---|---|---|---|---|---|---|---|
| | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
| **Education** | | | | | | | | | |
| less than high school | 39.0 | 48.9 | 51.7 | 51.2** | 48.9 | 47.3* | 45.4 | 46.3 | 48.8 |
| high school | 44.9 | 39.1 | 37.5 | 38.1** | 40.5 | 41.8 | 43.2 | 41.9 | 40.4 |
| more than high school | 12.8 | 10.2 | 9.9 | 10.2 | 10.1 | 10.5 | 11.0 | 11.0 | 8.7 |
| **Annual Earnings** | | | | | | | | | |
| no Earnings | 13.3 | 12.7 | 14.3** | 40.4** | 56.8** | 41.3** | 33.3 | 30.9 | 31.9 |
| $1-5,000 | 71.0 | 68.5 | 63.1** | 47.0** | 35.5** | 39.8** | 42.7 | 43.1 | 44.6 |
| $5,001-15000 | 14.9 | 17.4 | 20.4** | 11.4** | 7.1** | 15.2** | 19.5 | 20.2 | 18.3 |
| $15,001025,000 | 0.8 | 1.2 | 2.0** | 1.1** | 0.5** | 3.2* | 4.0 | 4.7 | 4.7 |
| over $25,001 | 0.1 | 0.2 | 0.1 | 0.1 | 0.1** | 0.5 | 0.6 | 1.0 | 0.5 |
| **Number of Quarters Employed** | | | | | | | | | |
| none | 13.3 | 12.7 | 14.3** | 40.4** | 56.8** | 41.3** | 33.3 | 30.9 | 31.9 |
| 1-4 quarters | 42.6 | 37.6 | 35.3** | 26.5** | 20.3 | 21.2** | 23.2 | 23.7 | 24.3 |
| 5-7 quarters | 30.0 | 33.0 | 30.1** | 21.7** | 15.0** | 21.6** | 24.7 | 27.1 | 27.0 |
| 8 quarters | 14.1 | 16.7 | 20.2** | 11.3** | 8.0** | 15.9** | 18.8 | 18.2 | 16.9 |
| N | 2,027 | 10,873 | 8,532 | 8,119 | 6,732 | 6,148 | 5,646 | 6,558 | 1,328 |

Note: statistical tests of differences in proportions of participants are conducted for the period 1999-2003. Proportions in adjacent two years for each job placements are compared.

* p<0.05, ** p<0.01

57% in 2001 to 41% in 2002, the participants with earnings ranging from $5,000 to $25,000 increased in 2002.

The employment history prior to entering the W-2 program also shows similar patterns as found in the prior earnings of CMF and CMU participants. The employment history of W-2 participants assigned to CMF or CMU placements since 2002 is longer than that of those from earlier periods. The percentage of those with an earning history longer than 8 quarters increased from 8% in 2001 to 16% in 2002. Overall, the results suggest that W-2 agencies responded to the changes in the earnings gain rate standard by controlling the movement of W-2 participants and assigning those who were more likely to show an earnings gain to CMF or CMU placements.

## The Effect of Earnings Gain Standard on the Earning Outcomes of W-2 Participants

Figure 1 shows the earnings at the exited quarter for exited W-2 participants in different job placements from 1997 to 2004. Except for TJB placement, the levels of exited quarter earnings are higher for the participants in unsubsidized employment placements (CMF, CMU) than those in subsidized placements (CS1). Compared with the participants in CMF or CMU placements, the participants in the TJB placement show greater variability in exited quarter earnings. The exited quarter earnings of TJB participants declined during 2000-2002, then started increasing in 2002.

**Figure 1.** Exited Quarter Earnings of W-2 Participants by Job Placements

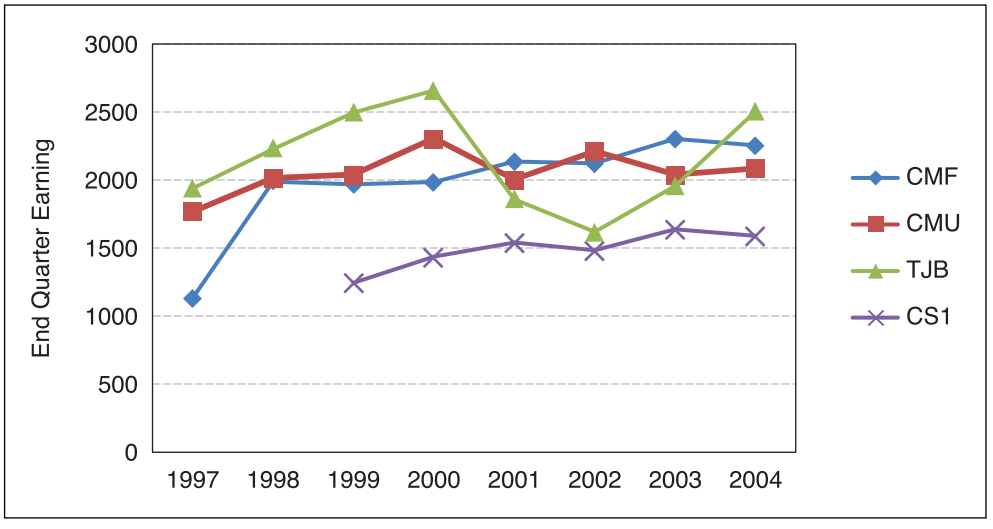


Table 10 shows the key results of the four sets of OLS regression models of earnings gain. An interaction term was included in each model with varying years to examine whether the earnings gain of CMF and CMU participants was different from that of TJB and CS1 participants. The first panel compares the changes in the earnings gain of the two groups between the first and the second contract periods. The interaction term, as a difference-in-difference estimator (CMFCMU*year 2000-2001), shows that the difference in the earnings gain of CMF and CMU participants from the first period to the second contract period is greater than the earnings gain difference of CS1 and TJB participants for the same period by $83. However, the differential is statistically insignificant.

The second panel compares the changes in the earnings gain of the two groups

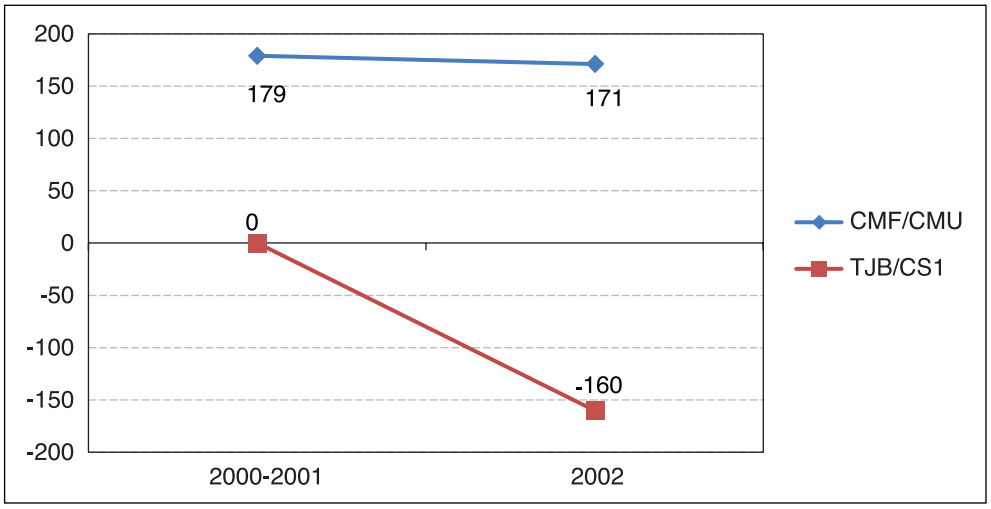
**Table 10.** OLS Regression Predicting Quarterly Earnings Gain of W-2 Participants

| | | Coefficient | Robust S.E. |
|---|---|---|---|
| 1998-99 vs. 2000-2001 (n=33,930) | beginning earnings | -0.3 | 0.01** |
| | CMFCMU (CS1, TJB as base) | -479.09 | 73.33** |
| | year 2000-2001 (1998-99 as base) | -97.24 | 123.49 |
| | CMFCMU*year 2000-2001 | 83.22 | 123.92 |
| 2000-2001 vs. 2002 (n=23,195) | beginning earnings | -0.31 | 0.01** |
| | CMFCMU (CS1, TJB as base) | 178.96 | 45.95** |
| | year 2002 (2000-2001 as base) | -160.48 | 72.28* |
| | CMFCMU*year 2002 | 152.37 | 73.45* |
| 2002 vs. 2003 (n=13,629) | beginning earnings | -0.32 | 0.01** |
| | CMFCMU (CS1, TJB as base) | 320.07 | 58.57** |
| | year 2003 (2002 as base) | 113.64 | 74.63 |
| | CMFCMU*year 2003 | -40.59 | 80.38 |
| 2003 vs. 2004 (n=14,457) | beginning earnings | -0.33 | 0.01** |
| | CMFCMU (CS1TJB) | 285.66 | 56.69** |
| | year 2004 (2003) | -42.51 | 73.07 |
| | CMFCMU*year 2004 | 15.67 | 77.21 |

Note: Control variables included in the analysis are respondents' age, education level, race, number of children in their households, age of the youngest child, length of periods on AFDC, initial W-2 placements, amount of quarterly earnings, number of employed quarters prior to entering the W-2 program, service region, and regional unemployment rates. Detailed results are available on request from the author. Omitted categories are in parentheses.

*p <0.05 **p<0.01,

**Figure 2.** Changes in Earnings Gain for CMF/CMU and TJB/CS1 participants




between 2000-2001 and 2002. The difference in the earnings gain of CMF and CMU participants from 2000-2001 to 2002 is greater than for the TJB and CS1 participants by $152. Figure 2 illustrates these findings in detail. The application of the earnings gain standard to CMF and CMU placements prevented a decrease in earnings gain for them in 2002. However, TJB and CS1 participants, to whom the earnings gain standard was no longer applied, had a $160 decrease in earnings gain in 2002. Thus, the earnings gain standard had a positive effect on the earnings gain of CMF and CMU participants.

The third and fourth panels in table 10 show the changes in earnings gain from 2002 to 2003 and 2003 to 2004, respectively. Since 2003, the earnings gain standard has not been required and has become an optional one for collecting performance information. The difference in the earnings gain of CMF and CMU participants from 2002 to 2003 is $41 lower than the change in earnings gain of TJB and CS1 participants. From 2003 to 2004, the change in earnings gain of CMF and CMU participants is only $16 higher than that of TJB and CS1 participants. Both differences in earnings gain are statistically insignificant. These results confirm that the earnings gain rate standard had a positive impact on maintaining the earnings gain of W-2 participants.

## DISCUSSION AND CONCLUSION

This study has analyzed how W-2 agencies responded to the adoption of the earnings gain rate standard and whether the standard influenced the economic outcomes of W-2

participants. Our findings suggest that applying the earnings gain standard to CMF and CMU participants in 2002 had a positive effect on maintaining the earnings gain of the group even though financial incentives had been weak and the unemployment rate had been relatively high since 2000. The effect of the transformation in 2003 of the earnings gain standard from a required standard in 2002 into an information-only standard reconfirms the positive role of the earnings gain standard.

However, our findings also demonstrate that W-2 agencies may have selected participants who were more likely to have a higher earning capacity and may have altered the movement of participants in and out of CMF and CMU job placements. Under exacerbating economic conditions after 2000, it might have been challenging for W-2 agencies to meet the earnings gain rate standard. Various factors such as local labor market conditions and the characteristics of jobs for W-2 participants might have affected the earnings of W-2 participants. Such conditions might have induced W-2 agencies to meet the earnings gain standard by changing the movement of W-2 participants in and out of the program. These results confirm theoretical predictions on the roles of performance incentives and gaming behaviors of contractors (Courty & Marshke, 1997, 2004; Koning & Heinrich, 2013). This study contributes to the literature on performance-based contracting by examining both intended effects of introducing performance standards and unintended effects of selection and parking problems in a balanced way.

The positive effects of the earnings gain rate standard also imply that retaining other employment-related performance standards (e.g., entered employment, job retention) might have beneficial effects on W-2 participants' economic outcomes or at least prevent a decline in their economic performances. Since 2000, W-2 agencies have had to apply these employment-related standards to all W-2 participants to obtain RFS and performance bonuses. To assess their effect on W-2 participants' economic outcomes, it would also be necessary to investigate the gaming responses of W-2 agencies to them.

Our findings have several implications for the design of service contracts in welfare programs. First, state governments might achieve policy goals by motivating service providers to use well-deigned performance standards, tying their use of such standards to administrative and financial rewards. Second, states can share the financial risk assumed by providers by offering more incentives and adjusting performance standards. Because of decreasing financial incentives for W-2 agencies, imposing strict performance standards to obtain rewards did not prevent W-2 agencies' gaming behaviors, such as selecting W-2 participants and controlling the movement of W-2 participants. Such responses are W-2 agencies' attempts to avoid financial and administrative risks when they do not meet required performance standards.

The elimination of the earnings gain rate standard in 2003 was an attempt to eliminate the incentive to game on the part of W-2 agencies. Recognizing that the unintended effects of outcome-oriented performance standards might lead to gaming behaviors, in 2002 Wisconsin introduced process-oriented performance standards such as basic educational activities (Wisconsin Legislative Audit Bureau, 2005). Such changes in the sets of performance standards might reduce the gaming behaviors of W-2 agencies. Constraining the freedom of W-2 agencies, however, might also undermine the innovative efforts of W-2 agencies. Wisconsin also encouraged W-2 agencies to achieve their policy goals by inviting them to closely communicate with the state, share performance-related information, and participate in setting performance standards and target levels. These are more effective than forcing W-2 agencies to achieve performance standards solely drafted by the state.

The arrangements of performance-based contracting might have a substantial impact on the well-being of welfare program participants. For example, an evaluation of the W-2 program reveals that there are differences in the types of service provision and average annual income of former W-2 participants across W-2 agencies (Wisconsin Legislative Audit Bureau, 2005). Although the evaluation does not adjust for varying characteristics of the participants and local economic conditions, the substantial variations across W-2 agencies indicate that the agencies might influence the well-being of welfare participants as well as the manner in which the participants receive services. The variation also raises a recurring question regarding whether different types of welfare agencies deliver appropriate services to participants in an equitable way (Wisconsin Legislative Audit Bureau, 2005). The state could use performance-based contracting as a tool to regulate welfare agencies' behaviors.

This study has several limitations with regard to exactly identifying the effects of performance standards on the economic outcomes of W-2 participants and the behaviors of W-2 agencies. First, this study mainly used the earnings gain measure to evaluate the economic performance of a subset of W-2 participants. However, other measures such as earnings gain after one to three years would also be useful to evaluate the midterm value-added of W-2 participants. Future research needs to develop multiple performance measures to evaluate the performance of welfare program participants comprehensively. It is also necessary to examine how various performance standards are associated with each other. Because varying factors are associated with the achievement of different performance goals, W-2 agencies might use varying strategies and mobilize different resources to achieve diverse performance goals (Marschke, 2002).

Second, this study tried to identify selection and parking effects by examining entry and exit patterns, number of days in job placements, and variations in participants'

characteristics over contract periods and across focal groups of W-2 participants. A more rigorous test of the effects requires additional regression analysis. For example, a binary probit analysis, which predicts probability of entry into and exit from CMF and CMU placements, is needed. In addition, regression analysis using the number of days a participant remains in a job placement as dependent variable is required to identify the parking effect thoroughly.

Further research needs to investigate whether performance contracting would standardize service provision and ensure equitable services. Performance contracting is an outcome control mechanism, providing substantial leeway for service contractors to design the services creatively. Advances in performance management systems might compromise that leeway. Performance management prioritizes effectiveness or improvement in performance over the provision of equitable services to program participants. However, welfare advocates and stakeholders have been concerned about the equity of service provision (Wisconsin Legislative Audit Bureau, 2005). Future research needs to address the concerns about equity by examining whether the emergence of private providers and their responses to performance-based contracting affect the equity of service provision.

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**Appendix Table 1.** Characteristics of W-2 Participants, 1997-2005

| | 1st Contract (1997-1999) | | | 2nd Contract (2000-2001) | | | 3rd Contract (2002-2003) | | | 4th Contract (2004-2005) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CMF/ CMU | TJB/ CSJ | All | CMF/ CMU | TJB/ CSJ | All | CMF/ CMU | TJB/ CSJ | All | CMF/ CMU | TJB/ CSJ | All |
| **Number of Participants at Baseline by Age** | | | | | | | | | | | | |
| 16-17 | 0.2 | 0.4 | 0.3 | 0.4 | 0.6 | 0.5 | 0.2 | 0.5 | 0.4 | 0.4 | 0.3 | 0.4 |
| 18-25 | 46.9 | 49.3 | 49.5 | 54.9 | 57.4 | 57.1 | 59.3 | 61.7 | 61.6 | 62.2 | 65.5 | 64.1 |
| 26-30 | 21.8 | 19.3 | 19.7 | 18.0 | 15.8 | 16.4 | 16.2 | 14.5 | 14.9 | 14.7 | 12.7 | 13.5 |
| 31-40 | 25.3 | 24.9 | 24.3 | 21.4 | 20.7 | 20.5 | 19.0 | 18.0 | 17.8 | 17.3 | 16.2 | 16.7 |
| 41 or more | 5.8 | 6.0 | 6.2 | 5.3 | 5.5 | 5.5 | 5.2 | 5.2 | 5.2 | 5.3 | 5.2 | 5.3 |
| missing | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| **Education** | | | | | | | | | | | | |
| less than high school | 48.5 | 61.3 | 53.8 | 50.9 | 64.5 | 56 | 47.2 | 59.3 | 53.8 | 46.0 | 57.6 | 52.7 |
| high school | 39.4 | 30.1 | 35.5 | 38.5 | 28.7 | 34.9 | 41.9 | 32.7 | 36.9 | 42.2 | 33.4 | 37 |
| more than high school | 10.4 | 7.4 | 9.2 | 10.0 | 6.4 | 8.6 | 10.6 | 7.7 | 9 | 10.9 | 7.7 | 9.1 |
| missing | 1.7 | 1.3 | 1.5 | 0.6 | 0.5 | 0.6 | 0.4 | 0.3 | 0.4 | 1.0 | 1.3 | 1.1 |
| **Race** | | | | | | | | | | | | |
| white | 26.0 | 14.7 | 24.7 | 24.8 | 16.4 | 25.4 | 27.5 | 17.7 | 26.4 | 21.5 | 14.6 | 24.1 |
| black | 61.9 | 73.7 | 63.7 | 63.6 | 70.8 | 63 | 60.2 | 70.1 | 61.9 | 67.3 | 72.2 | 64.1 |
| Hispanic | 7.1 | 7.5 | 7 | 8.1 | 9.9 | 8.2 | 9.4 | 9.5 | 8.8 | 8.2 | 9.4 | 8.4 |
| other | 2.0 | 1.9 | 2.1 | 1.7 | 1.3 | 1.7 | 1.4 | 1.2 | 1.6 | 1.1 | 1.1 | 1.2 |
| Asian | 2.6 | 1.7 | 2.2 | 1.2 | 1.1 | 1.2 | 1.2 | 1.0 | 1.1 | 1.7 | 2.5 | 2 |
| missing | 0.5 | 0.4 | 0.4 | 0.6 | 0.5 | 0.5 | 0.4 | 0.5 | 0.4 | 0.4 | 0.3 | 0.4 |
| **Number of Children** | | | | | | | | | | | | |
| none | 1.7 | 1.4 | 2.4 | 3.2 | 3.2 | 4.3 | 5.2 | 4.5 | 6.1 | 5.9 | 6.5 | 7.5 |
| 1 | 31.0 | 33.4 | 34.3 | 39.4 | 43.1 | 42.1 | 45.7 | 49.2 | 47.7 | 50.3 | 53.0 | 50.8 |
| 2 | 28.0 | 26.8 | 26.9 | 26.3 | 25.3 | 25.6 | 25.0 | 23.1 | 23.4 | 22.6 | 21.0 | 21.7 |
| 3 or more | 39.3 | 38.4 | 36.3 | 31.1 | 28.4 | 28 | 24.1 | 23.2 | 22.8 | 21.3 | 19.5 | 20 |
| **Age of Youngest Child** | | | | | | | | | | | | |
| unborn child at entry | 11.8 | 14.3 | 16.5 | 14.9 | 15.0 | 17.5 | 16.4 | 15.5 | 18.3 | 16.7 | 16.7 | 18.5 |
| 0-2 years | 46.0 | 43.9 | 44.7 | 49.8 | 49.6 | 49.9 | 52.2 | 51.6 | 51.8 | 52.6 | 53.6 | 53.6 |
| 3-5 years | 18.6 | 17.6 | 16.1 | 14.5 | 14.1 | 13.2 | 12.7 | 13.1 | 11.7 | 12.8 | 12.5 | 11.5 |
| 6-12 years | 18.8 | 18.7 | 17.4 | 16.1 | 16.3 | 14.9 | 14.6 | 15.5 | 14.1 | 13.8 | 13.4 | 12.8 |
| 13-17 years | 4.8 | 5.4 | 5.1 | 4.3 | 4.6 | 4.3 | 3.8 | 4.0 | 3.7 | 3.8 | 3.5 | 3.4 |
| no children | 0.1 | 0.1 | 0.2 | 0.4 | 0.3 | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |

| | 1st Contract (1997-1999) | | | 2nd Contract (2000-2001) | | | 3rd Contract (2002-2003) | | | 4th Contract (2004-2005) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CMF/ CMU | TJB/ CSJ | All | CMF/ CMU | TJB/ CSJ | All | CMF/ CMU | TJB/ CSJ | All | CMF/ CMU | TJB/ CSJ | All |
| **Number of Months AFDC Received before Entry** | | | | | | | | | | | | |
| 0 months | 22.1 | 21.8 | 26.8 | 55.9 | 56.3 | 58.8 | 72.6 | 73.6 | 73.5 | 78.5 | 80.3 | 79.4 |
| 1-18 months | 34.1 | 32.8 | 32.8 | 19.6 | 17.5 | 17.5 | 13.4 | 11.8 | 12.1 | 10.0 | 8.2 | 8.8 |
| 19-24 months | 43.8 | 45.4 | 40.4 | 24.5 | 26.1 | 23.8 | 14.0 | 14.6 | 14.4 | 11.5 | 11.5 | 11.8 |
| **Initial W-2 Assignment** | | | | | | | | | | | | |
| lower tier | 54.5 | 76.5 | 62.4 | 54.8 | 69.0 | 58.4 | 51.9 | 64.3 | 55.7 | 53.2 | 62.5 | 54.6 |
| CMC tier | 9.9 | 8.0 | 13.1 | 17.1 | 14.6 | 19.5 | 21.8 | 18.0 | 23.7 | 22.4 | 19.6 | 25.7 |
| upper tier | 35.4 | 15.4 | 24.4 | 28.1 | 16.4 | 22.1 | 26.3 | 17.7 | 20.7 | 24.4 | 18.0 | 19.8 |
| missing | 0.2 | 0.1 | 0.1 | | 0.0 | 0 | 0.0 | | 0 | | | 0 |
| **Pre-Entry Earnings** | | | | | | | | | | | | |
| none | 13.0 | 20.5 | 17.3 | 40.8 | 46.5 | 48.2 | 41.9 | 45.1 | 40.3 | 31.3 | 38.2 | 34.5 |
| $1-5000 | 67.5 | 67.1 | 65.8 | 46.2 | 45.8 | 42.8 | 39.5 | 42.2 | 43.5 | 43.4 | 45.8 | 45.8 |
| $5001-15000 | 17.9 | 11.4 | 15.4 | 11.9 | 7.0 | 8.2 | 15.2 | 10.6 | 13.3 | 19.9 | 12.9 | 15.8 |
| $15001-25000 | 1.5 | 0.8 | 1.3 | 1.0 | 0.7 | 0.8 | 3.0 | 1.8 | 2.4 | 4.6 | 2.6 | 3.3 |
| $25,001 or more | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.5 | 0.3 | 0.4 | 0.8 | 0.5 | 0.6 |
| missing | 0.1 | 0.0 | 0 | 0.1 | 0.0 | 0 | 0.0 | 0.1 | 0 | 0.0 | 0.1 | 0.1 |
| **Number of Quarters Employed before Entry** | | | | | | | | | | | | |
| none | 13.0 | 20.5 | 17.3 | 40.8 | 46.5 | 48.2 | 41.9 | 45.1 | 40.3 | 31.3 | 38.2 | 34.5 |
| 1-4 quarters | 37.6 | 42.8 | 38.9 | 26.2 | 29.6 | 26.3 | 21.5 | 25.8 | 25.7 | 23.7 | 29.0 | 27.9 |
| 5-7 quarters | 31.9 | 26.3 | 29 | 21.1 | 16.7 | 17.2 | 21.1 | 19.1 | 20.9 | 26.8 | 22.1 | 24 |
| 8 quarters | 17.4 | 10.4 | 14.8 | 11.9 | 7.2 | 8.3 | 15.5 | 9.9 | 13 | 18.2 | 10.6 | 13.6 |
| missing | 0.1 | 0.0 | 0 | 0.1 | 0.0 | 0 | 0.0 | 0.1 | 0 | 0.0 | 0.1 | 0.1 |
| **Region** | | | | | | | | | | | | |
| Milwaukee County | 71.3 | 86.0 | 72.1 | 75.1 | 85.4 | 73.5 | 74.7 | 85.5 | 73.3 | 80.6 | 88.2 | 75.4 |
| other urban counties | 19.5 | 10.0 | 18.9 | 16.9 | 11.6 | 18.7 | 16.2 | 11.2 | 18.9 | 12.0 | 8.2 | 17 |
| rural counties | 9.2 | 4.0 | 9.1 | 7.7 | 2.8 | 7.5 | 8.8 | 2.8 | 7.3 | 6.8 | 3.0 | 7 |
| missing | 0.0 | | 0 | 0.3 | 0.2 | 0.3 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.6 |
| **Unemployment Rate** | 3.7 | 4.8 | 6.6 | 5.9 | | | | | | | | |
| **Number of Participants** | 18,636 | 22,294 | 63,310 | 15,743 | 20,777 | 66,726 | 11,737 | 27,322 | 74,397 | 9,847 | 21,701 | 58,900 |